

Influencing sorghum breeding programmes: ILRI outcome story 2004

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ILRI, through nutritional studies, was able to show a wide variability in digestibility of stover from different sorghum varieties. It then developed and applied tools such as Near Infrared Spectroscopy (NIRS) to screen varieties for stover quality. Varieties with good stover quality were also shown to have high grain yield. Based on these findings, indicators of stover quality have now been incorporated into the sorghum breeding programmes of ICRISAT in India and into the breeding plans of the All India Sorghum Breeding Programme.

Similar outcomes have also been achieved with ICRISAT in West Africa. In addition, the National Research Center for Sorghum has used the ILRI technology and methodology to screen their sorghum releases for stover quality. These outcomes in the plant breeding community reflect strong demand by farmers for dual-purpose sorghum with good stover quality.

The concept developed using sorghum was further applied in 2004 to provide baseline data in groundnut, pearl millet and rice, and presented to national and international crop improvement communities for inclusion of these traits into multidimensional crop improvement programmes.

References:

Prasad et al., 2004. Proceedings of Vth Animal Nutrition Association Biennial Conference, 24-26 November, 2004, Bangalore.

Hall et al, 2004. Sorghum and pearl millet as food-feed-crops in India. Animal Nutrition and Feed Technology. 4:1-15

Pattanaik et al, 2004. Evaluation of genetic variability of rice straw cultivars for better straw quality by in vitro gas production. IN: Nutritional Technologies for Commercialization of Animal production. Abstracts of XI Animal Nutrition Conference, Jabalpur, January 5-7, 2004, pp27.

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